

# THE MARYLAND COUNCIL ON OPEN DATA

Annual Report  
January 10, 2020

**The Honorable Larry Hogan**

Governor  
State House  
Annapolis, MD 21401 - 1925

**The Honorable William C. Ferguson IV**

President of the Senate  
State House, H-107  
Annapolis, MD 21401-1991

**The Honorable Adrienne A. Jones**

Speaker of the House  
State House, H-101  
Annapolis, MD 21401-1991





## INTRODUCTION

DATA IS GOVERNMENT'S MOST VALUABLE ASSET. DATA TRANSPARENCY AND ACCESSIBILITY ARE AT THE FOREFRONT IN MARYLAND. ACCESS TO OPEN DATA, DATA THAT IS FREELY AND PUBLICLY AVAILABLE TO THE FULLEST EXTENT POSSIBLE IN CONSIDERATION OF PRIVACY AND SECURITY, PROMOTES ENGAGEMENT AND TRANSPARENCY, INFORMS DECISION MAKING AND SERVES AS A CATALYST FOR ENTREPRENEURSHIP AND TRANSFORMATIVE CHANGE.

GOVERNMENT AGENCIES USE DATA TO DRIVE AND SUPPORT THEIR MISSION TO BETTER SERVE THE STATE OF MARYLAND CONSTITUENTS, BUSINESSES, CUSTOMERS AND STAKEHOLDERS. THE STATE OF MARYLAND EMPLOYS MORE THAN 45,000 PEOPLE WHO ALL NEED ACCESS TO DATA TO DELIVER BETTER SERVICES AND TO BENEFIT THOSE SERVED.

## VISION

MAKE GOVERNMENT CURATED DATA EASILY SEARCHABLE AND AVAILABLE TO ALL CITIZENS OF MARYLAND AND BEYOND.

## MISSION

TO PROMOTE EASY AND DIRECT ACCESS TO DATA THAT EMPOWERS MARYLANDERS TO EFFECT CHANGE AND ENABLES EXECUTIVE BRANCH, STATE AGENCIES AND COORDINATING OFFICES TO BETTER DELIVER SERVICES TO CONSTITUENTS, BUSINESSES, AND VISITORS IN MARYLAND.

## LEGISLATION

THE MARYLAND OPEN DATA ACT (STATE GOVERNMENT, CHAPTER 69, SECTION 10-1501 THROUGH 10-1504) WAS ESTABLISHED IN 2015. THE INTENT OF THE ACT IS "THAT OPEN DATA BE MACHINE READABLE AND RELEASED TO THE PUBLIC IN WAYS THAT MAKE THE DATA EASY TO FIND, ACCESSIBLE, AND USABLE [...]". IN ADDITION, THE ACT ENSURES THAT OPEN DATA DOES NOT INCLUDE DATA THAT WOULD COMPROMISE THE SECURITY, PRIVACY OR INTEGRITY OF SYSTEMS, PROGRAMS OR PERSONS.

# MARYLAND OPEN DATA

## HISTORY

**MARYLAND HAS BEEN A LEADER IN OPEN DATA SINCE 2012. SUCCESSES THROUGHOUT THE YEARS HAVE INCLUDED:**

- LAUNCH OF THE DATA FRESHNESS DASHBOARD TO REPORT ON OPEN DATA UPDATES;
- LOCAL GOVERNMENTS SHARING THEIR OPEN DATA THROUGH MARYLAND'S OPEN DATA PORTALS;
- ABILITY TO DOWNLOAD, VISUALIZE AND CONNECT TO ALL DATA ON MARYLAND'S OPEN DATA PORTALS;
- PUBLISH MANAGING FOR RESULTS (MFR) TO MORE EASILY SEARCH, VIEW AND ANALYZE SUBMITTED DATA;
- ESTABLISH STATE AGENCY DATA COORDINATORS TO ENSURE PARTICIPATION IN TRANSPARENCY PRACTICES;
- CONDUCT TRAINING SESSIONS FOR STATE AGENCY STAFF ON HOW TO MAKE MORE DATA OPEN;
- INFORM MARYLAND'S PUBLIC LIBRARIANS ON FINDING AND WORKING WITH MARYLAND'S OPEN DATA PORTALS;
- PUBLISH AN INTERACTIVE DASHBOARD TO HELP CITIZENS EXPLORE MARYLAND'S BUDGET DATA;
- DEVELOP GUIDANCE AND STANDARDS TO PUBLISH DATA ON MARYLAND'S OPEN DATA PORTALS;
- ESTABLISH COUNCIL WORKING GROUPS TO CARRY OUT SPECIFIC INITIATIVES RELATED TO ADMINISTRATIVE AND MANAGEMENT, OUTREACH AND TRAINING AND DATA AND TECHNICAL RESOURCES.

ALL OF THESE ACCOMPLISHMENTS CONTINUE TO IMPROVE UPON THE ACCESS TO OPEN DATA USED BY BUSINESSES, RESIDENTS, VISITORS, AND CIVIL SERVANTS IN DECISION MAKING. MOREOVER, THE TRANSPARENCY OF DATA IMPROVES ACCOUNTABILITY, AS DATA OWNERS SHARE THE RESPONSIBILITY FOR ENSURING THAT DATA IS ACCURATE, UP-TO-DATE AND AVAILABLE TO THE PUBLIC. OPEN DATA HAS THE POTENTIAL TO IMPROVE PERFORMANCE, BY ENABLING GREATER ANALYSIS OF DATA AND PROVIDING MORE OPPORTUNITIES FOR COLLABORATION.

# FEATURED HIGHLIGHT

## MARYLAND TRANSPARENCY PORTAL

In 2019, the Maryland Department of Budget and Management and the Maryland Department of Information Technology collaborated on an effort to provide an easy and transparent view into the State's budget and associated programs. This partnership resulted in the Maryland Transparency Portal ([mtp.maryland.gov](http://mtp.maryland.gov)).

All data on the Maryland Transparency Portal is stored, searchable, and available on the Open Data Portal ([opendata.maryland.gov](http://opendata.maryland.gov)). The Maryland Transparency Portal is built on the same platform as the Maryland Open Data Portal, resulting in a streamlined approach to interacting with the site and the underlying data.

Portal visitors are able to access and visualize:

- Budget information, including expenditure and fund detail;
- Vendor payment by fiscal year;
- Grant and loans by fiscal year;
- Agency staffing counts;
- Direct link to each programs performance metrics (Managing For Results);
- And much more...

Additionally, the data on the Maryland Transparency Portal has been indexed to ease the search experience. A portal visitor can search for a key term and directly identify which programs received funding in association with that term.

The Maryland Transparency Portal provides valuable access to information to ensure the constituents and businesses of Maryland are able to explore where budgets are being applied.



# KEY INITIATIVES

## BETTER UNDERSTANDING OUR CITIZENS

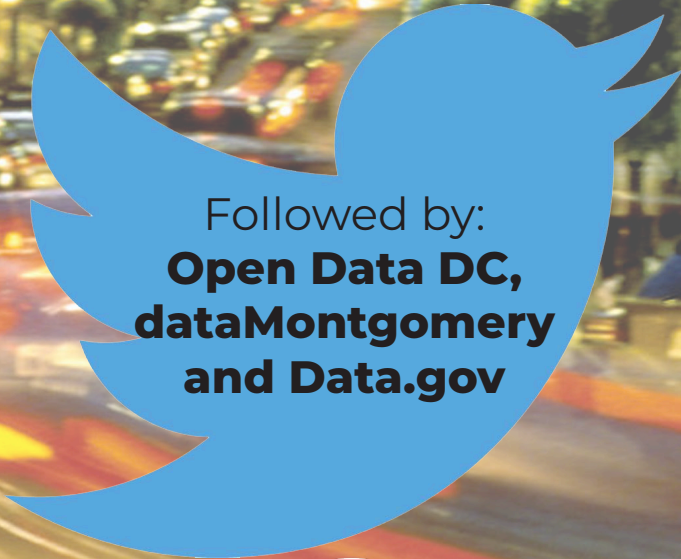
*Ensure awareness of available data and provide data that reflects popular topics.*

### COMMUNICATION

How do we identify what information is being used, or would be valuable in supporting the constituents and businesses in Maryland? For example, are businesses leveraging data on the portals to determine whether or not to move their business to Maryland? Are constituents using school boundary data to determine the school districts of perspective homes? How do we better gauge what these needs are?

Currently, communication is done primarily through Maryland's open data portals by way of a customer survey and through feedback forums natively available on the portals. Additionally, presentations, meetings, and word of mouth are the other mechanisms used to solicit feedback, but gaps remain.

In 2019, the State launched a new twitter handle, @datamaryland, which supports communication of updates and allows for public engagement with the State over open data requests and questions. While this serves as a supplemental way to communicate with the public, additional efforts involving broad outreach and direct engagement by the Council members, and their organizations, are necessary to better understand and identify what data may be missing from the current open data offerings.



Followed by:  
**Open Data DC,  
dataMontgomery  
and Data.gov**



# KEY INITIATIVES

## BETTER UNDERSTANDING OUR CITIZENS

*Ensure awareness of available data and provide data that reflects popular topics.*

### POLICY, STANDARDS, GUIDELINES

In order for agencies across state government to adopt a consistent approach to data management, clear standards need to be defined. This enhances the value of the data in the expansion of evidence-based and data-driven decisions. The crux of this is the availability of standards that are easily digested, applicable, and referable. The Maryland Department of Information Technology developed Open Data Policy and Standards, originally released in 2018, and have continued to enhance, as needs have matured.

These specifications and guidelines improve open data consistency and availability of information. They also safeguard that all visitors to Maryland's open data portals have access to the most up-to-date information; reduce or eliminate duplicate or overlapping data requests, and redundant data maintenance; ensure metadata is consistently created; and enable open data to be displayed by the consumer using the software of their choice.

The Open Data Policy and Standards, are a "child" process, aligning with the Maryland Department of Information Technology's Data Management Standardization which identifies both the data management strategy and the model for data governance as the foundation for all data management processes across the state. Key to this is the process for reorganizing where data falls in the Data Flow Design.

The State has adopted the "data first" orientation where identifying the "what" (data) should always come before the "how" (application development). By standardizing this approach to data management, the State has changed its approach to how open data is seen in the workflow of government and provides incentive for ensuring data quality is maintained. As open data serves as the public facing view into government, aligning with this strategy encourages a consistent approach to data-driven governing.



# KEY INITIATIVES

## IMPROVE ACCESS TO DATA

*Deliver accessibility of open data in a manner that best serves the interests of our portal visitors.*

### PLATFORM

*Maryland Open Data Portal – [opendata.maryland.gov](https://opendata.maryland.gov)*

*Maryland GIS Data Catalog – [data.imap.maryland.gov](https://data.imap.maryland.gov)*

How does the State continue to meet Marylander's needs for access to open data? The State hosts two open data portals that focus on search-based organization, allowing portal visitors to enter keywords and return all associated open data in a manner that is easy and intuitive. Additionally, the portals have been organized through structured open data category tiles to drive portal visitors to the open data based on a classification. When available, related open data is identified with a more comprehensive source of information to proactively answer questions. To provide further context, enhanced story features, which combine narrative content, data visualizations, and media inputs tell a better story of how data and evidence-based information is supporting initiatives to better the work and lives of the constituents, businesses and visitors of Maryland.

Portal visitors can explore open data, applications, and stories about particular areas of interest, including emergency management, environment, and community investment and planning, and transportation.

Maryland's open data portals provide access to the same tools and functionality available to state employees who are applying these resources in the act of carrying out the delivery of services. Portal visitors can request an account to create and save content which they can return to in the future. Built-in tools provide for visualization of open data as tables, graphs, dashboards, and maps, as well as integration with other business intelligence and analytics platforms. Download is also available in multiple file formats or portal visitors can connect directly to the open data through feeds.

**1,424**

Total Data Sets

**154**

New Data Sets

**8,500**

Monthly Users

**60,000**

Unique Users

**175,000+**

Data Downloads

# KEY INITIATIVES

---

## IMPROVE ACCESS TO DATA

*Deliver accessibility of open data in a manner that best serves the interests of our portal visitors.*

### TRAINING

Expansion of the reach of Maryland's open data portals, both within state government and beyond, further encourages the use of open data in making informed decisions. Providing training, both in e-learning/self-paced, and through traditional classroom settings enhances visitor's awareness and comfort in leveraging the open data and tools on Maryland's open data portals.

The broadest reach is made through self-paced training documents available via the web, and Maryland continues to expand its available training documentation through specific tutorials supporting data governance, access control, uploading new datasets, updating existing datasets, tagging open data for better user searches, maintaining open data and metadata consistency. In addition, videos demonstrate how to navigate Maryland's open data portals, navigate a dataset, publish open data, create filters, and create visualizations. Finally, vendor provided training is available to government employees.

In 2019, open data training sessions were delivered to the Maryland Department of Health, the Maryland Medical Cannabis Commission, the Maryland State Libraries, the Maryland Department of Transportation, and the Maryland Department of Commerce.



# KEY INITIATIVES

---

## STRENGTHEN USE OF OPEN DATA

*Improve reliability and promote outcomes that change Maryland for the better.*

## AUTOMATION & INTEROPERABILITY

In many cases, Maryland's open data portals serve as data repositories. In order to reduce the need to replicate existing processes, and prevent staff from performing redundant routines, processes are automated. Through these automated processes, data is directly retrieved from source systems and loaded into the portals. More complex automation processes can include the development of Extract, Transform, Load (ETL) or direct connections into source systems.

All automated processes drastically reduce time and remove the potential for error, with successful implementation already achieved with the Maryland Department of Transportation, the Maryland Department of Health, the Maryland Department of Labor, the Maryland Department of Budget and Management, the Maryland Department of General Services, the Maryland Department of Information Technology, the Maryland Department of Planning and the State Department of Assessments and Taxation.

Additionally, portal visitors can take advantage of the Application Programming Interfaces (APIs) to facilitate data interoperability. API use ensures customer access to the most up-to-date data on the portals. One-on-one coaching and information sharing webinars are used to promote the use of data interoperability. Additionally, portal visitors can connect open data from the portals to numerous third party analytics and visualization software platforms. This capability provides customers the ability to extend open data analysis to best in class analytics software and explore additional insights from the open data. There are currently 129 applications, developed by State government that are using and consuming open data through the use of APIs.

**696**

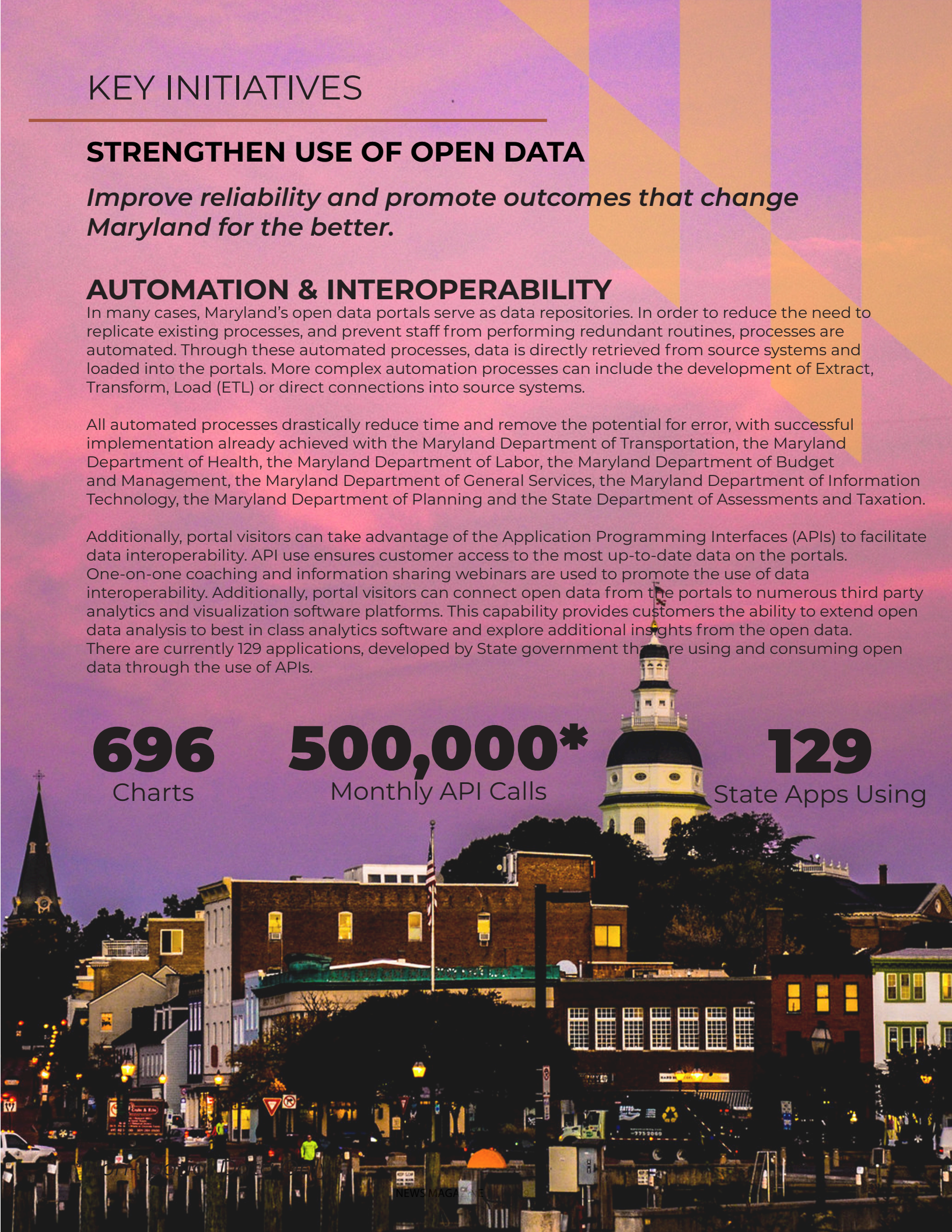
Charts

**500,000\***

Monthly API Calls

**129**

State Apps Using



# KEY INITIATIVES

---

## STRENGTHEN USE OF OPEN DATA

*Improve reliability and promote outcomes that have changed Maryland for the better.*

## VALIDATION & QUALITY ASSURANCE



How do we validate that the data available on the portals is accurate, up-to-date, and complete? As part of the process for making data available on the portals, each dataset is reviewed for completeness adhering to the Data Management Standards that have been developed. This process is completed by the Open Data Portal Administrator as part of the approval process prior to the data being made available to the public.

To compliment this process, the Maryland Department of Information Technology developed data inspection analysis, which is performed using automated scripts. This process reviews all data available on the portals, collecting statistics where additional information can be derived. The analysis is performed on a granular level, inspecting each record in the dataset, as well as an analysis to ensure a valid data schema. The analysis looks for data quality, data quantity, data duplication, as well as changes to the data. Information such as blank or null values, inconsistent cell characters, and count of changed records are made available to assess overall quality value of the data.

This analysis occurs on a monthly basis and runs on all 1,400+ datasets on the portals. Maryland is viewed as a leader in data quality and validation, receiving requests from a number of jurisdictions around the country, to describe methodologies and procedures in data validation.

# YEAR IN REVIEW

## NATIONAL ASSOCIATION OF STATE CIOs (NASCIO) WEBINAR SERIES: MARYLAND'S OPEN DATA PROGRAM

Performed a webinar series for NASCIO members detailing the Maryland Open Data Program, including the Maryland Open Data Act, Council on Open Data, and overall program details.

## MARYLAND ASSOCIATION OF COUNTIES (MACO) SUMMER CONFERENCE: OPEN DATA ROUNDTABLE

Members of the Governor's Office for Performance Improvement and the Department of Information Technology led the Open Data Roundtable discussion at the 2-19 MACo conference. Topics included the sharing of government budgets, statistics, and other public information in digestible formats; data and stat programs through dedicated staff and focused initiatives at the County level.

## OPEN DATA IN ACTION

At each Quarterly Council on Open Data meeting, state agencies are selected to demonstrate how they are using open data to support their programs and meet their business objectives.

### ***Presentations in 2019 included:***

- Department of Housing and Community Development
- Department of Information Technology
- Department of Budget Management
- Governors Office of Performance Improvement

## RESULTS FOR AMERICA 2019 STATE STANDARD OF EXCELLENCE

Maryland was recognized as a Rising Star State "for how state governments can consistently and effectively use evidence and data in budget, policy, and management decisions to achieve better outcomes for their residents."

"This was due, in part, to the state's Open Data Program, identified as a Promising Example under the Data Policies / Agreements category.

<sup>1</sup> <https://2019state.results4america.org/>

## DATAMONTGOMERY PRESENTATIONS

Participated in Montgomery County's Open Data Council meetings, providing Open Data Program highlights and updates, as well as engaging with local personnel to identify state data that is valuable at the county level for reporting and analytics. This engagement resulted in the development of a statewide road closure dataset that can be filtered on a county by county basis to provide near real time updates.

# MARYLAND OPEN DATA IN THE NEWS

The Open Data Program and related projects were highlighted in a number of media publications.

**Statescoop:**

New Maryland open data portal cuts down duplicate records

(<https://statescoop.com/new-maryland-open-data-portal-cuts-down-duplicate-records/>)

**Statescoop:**

Maryland's new budget portal gives residents a peek at state spending

(<https://statescoop.com/marylands-new-budget-portal-gives-residents-a-peek-at-state-spending/>)

**Technical.ly Baltimore:**

Technical.ly Baltimore: Maryland's open data portal gets an update

(<https://technical.ly/baltimore/2019/04/01/marylands-open-data-portal-gets-an-update/>)

**Statescoop:**

WBAL: State Opens Online Budget, Spending Portal

(<https://www.wbal.com/article/402999/3/state-opens-online-budget-spending-portal>)

**WBAL:**

WBAL: State Opens Online Budget, Spending Portal

(<https://www.wbal.com/article/402999/3/state-opens-online-budget-spending-portal>)

**WBAL:**

Government Technology:  
Maryland Tries Fresh Approach with  
Budget Transparency Portal

(<https://www.govtech.com/gov-experience/Maryland-Tries-Fresh-Approach-with-Budget-Transparency-Portal.html>)

**Tyler Technologies:**

Transparency Score Spurs Data Innovation

(<https://www.tylertech.com/resources/case-studies/transparency-score-spurs-data-innovation>)



**EXECUTIVE BRANCH AGENCY SECRETARIES  
AND COORDINATING OFFICE DIRECTORS (25)**

SECRETARY OF INFORMATION TECHNOLOGY (CHAIR)  
**MICHAEL LEAHY**

DIRECTOR OF THE GOVERNOR'S OFFICE OF PERFORMANCE  
IMPROVEMENT (VICE CHAIR)  
**VACANT**

SECRETARY OF AGRICULTURE  
**JOSEPH BARTENFELDER**

SECRETARY OF THE ENVIRONMENT  
**BEN H. GRUMBLES**

SECRETARY OF NATURAL RESOURCES  
**JEANNIE HADDAWAY-RICCIO**

SECRETARY OF PLANNING  
**ROB MCCORD**

SECRETARY OF TRANSPORTATION  
**PETE K. RAHN**

SECRETARY OF HOUSING AND COMMUNITY DEVELOPMENT  
**KENNETH C. HOLT**

SECRETARY OF COMMERCE  
**KELLY M. SCHULZ**

SECRETARY OF GENERAL SERVICES  
**ELLINGTON CHURCHILL, JR.**

STATE SUPERINTENDENT OF SCHOOLS  
**KAREN B. SALMON, PH.D.**

SECRETARY OF HEALTH  
**DENNIS R. SCHRADER**

SECRETARY OF PUBLIC SAFETY AND  
CORRECTIONAL SERVICES  
**ROBERT L. GREEN**

SECRETARY OF STATE POLICE  
**COL. WILLIAM M. PALLOZZI**

DIRECTOR OF ASSESSMENTS AND TAXATION  
**MICHAEL L. HIGGS, JR.**

SECRETARY OF BUDGET AND MANAGEMENT  
**DAVID R. BRINKLEY**

ADJUTANT GENERAL OF THE MILITARY DEPARTMENT  
**MAJ. GEN. LINDA L. SINGH**

DIRECTOR OF THE MARYLAND EMERGENCY  
MANAGEMENT AGENCY  
**RUSSELL J. STRICKLAND**

SECRETARY OF LABOR  
**TIFFANY P. ROBINSON**

SECRETARY OF HUMAN SERVICES  
**LOURDES PADILLA**

GOVERNOR'S HOMELAND SECURITY ADVISOR  
**WALTER F. LANDON**

EXECUTIVE DIRECTOR OF THE GOVERNOR'S  
OFFICE OF CRIME CONTROL AND PREVENTION  
**V. GLENN FUESTON, JR.**

EXECUTIVE DIRECTOR OF THE MARYLAND  
INSTITUTE FOREMERGENCY MEDICAL SERVICES SYSTEMS  
**KEVIN G. SEAMAN, M.D.**

EXECUTIVE DIRECTOR OF THE DEPARTMENT  
OF LEGISLATIVE SERVICES  
**VICTORIA L. GRUBER**

STATE ARCHIVIST  
**TIMOTHY D. BAKER**

**APPOINTEE FROM SENATE AND APPOINTEE  
FROM HOUSE OF DELEGATES (2)**

SENATE OF MARYLAND  
**SENATOR BILL FERGUSON**

HOUSE OF DELEGATES OF MARYLAND  
**REPRESENTATIVE BONNIE L. CULLISON**

**APPOINTEES OF ELECTED OFFICIALS OR EMPLOYEES  
FROM LOCAL ENTITIES TO REPRESENT EACH OF THE  
FOLLOWING GROUPS OF COUNTIES (5):**  
*ALLEGANY COUNTY, FREDERICK COUNTY, GARRETT  
COUNTY, AND WASHINGTON COUNTY*  
**JOHN E. (BUD) GUDMUNDSON**

*CAROLINE COUNTY, CECIL COUNTY, DORCHESTER COUNTY,  
KENT COUNTY, QUEEN ANNE'S COUNTY, SOMERSET COUNTY,  
TALBOT COUNTY, WICOMICO COUNTY, AND WORCESTER COUNTY*  
**MICHAEL S. SCOTT, PH.D.**

*ANNE ARUNDEL COUNTY, CALVERT COUNTY, CHARLES  
COUNTY, AND ST. MARY'S COUNTY*  
**WILLIAM E. DOLLINS, III**

*MONTGOMERY COUNTY AND PRINCE GEORGE'S COUNTY*  
**HARASH N. (SONNY) SEGAL**

*BALTIMORE CITY, BALTIMORE COUNTY, CARROLL COUNTY,  
HARFORD COUNTY, AND HOWARD COUNTY*  
**ROB LIVERMORE**

**APPOINTEES FROM THE PRIVATE, PRIVATE UTILITY,  
ACADEMIC, OR NONPROFIT SECTORS (5):**

**SCOTT SHAFFER**

**DAVID ZLOWE**

**LINDA M. LOUBERT, PH.D.**

**ELLIOT PLACK**

**VACANT**



## **CONTACT INFORMATION**

### **Department of Information Technology**

100 Community Place  
Suite 2-100  
Crownsville, Maryland 21032  
(410) 697-9400

### **Governor's Office of Performance Improvement**

100 Community Place  
Suite 3-525  
Crownsville, MD 21032  
(410) 697-9596